Amendment To The Specification

Please replace the paragraph on page 1 beginning on line 1 and ending on line 4 with the following amended paragraph:

A1

The present invention relates generally to expert systems, and, more particularly, to a computerized method and system for making decisions based on evidential reasoning, such as may be used for making decisions regarding risk and credit analysis for financial service applications.

Please delete the paragraph on page 1 beginning on line 5 and ending on line 23.

Please replace the paragraph beginning on page 3, line 13 and ending on page 4, line 2 with the following amended paragraph:

A2

Modeling approaches may differ depending on the complexity of the decision to be made and the amount of good historical data available. For example, if there is access to large volumes of good quality historical data that characterize good and bad credit risks, then models are typically developed using statistical regression, neural nets, data mining or other mathematical techniques that analyze large data sets. Model development in the absence of data, however, typically requires advanced analytic techniques to evaluate and manage information in order to make strategic decisions or recommendations. In these situations, one key objective is to gather enough information and evidence in support of a final decision or rating. As will be appreciated by those skilled in the art, the computerized analysis of credit request information is a challenging activity, since it requires emulating the thought process of expert analysts, and such analysis typically involves the use of judgment ~~judgement~~ in aggregating facts or evidence about a particular situation. For credit decisions, evidence indicating the financial strength, company quality, payment history, credit agency ratings, etc. are combined to determine an appropriate line of credit. See U.S. patent application Serial No. 09/820,675 (RD-28,220) ~~(RD-22,820)~~, titled "Computerized Method For Determining A Credit Line" and filed concurrently herewith, for background information regarding an innovative technique that allows to quickly and systematically determine a

A2 credit line to be issued by a financial service provider to any given business applicant entity.

Please replace the paragraph on page 5 beginning on line 14 and ending on line 15 with the following amended paragraph:

FIG. 1 shows a block diagram ~~of one illustrative embodiment~~ of an example-based evidential reasoning system according to the Prior Art.

Please replace the paragraph on page 5 beginning on line 16 and ending on line 18 with the following amended paragraph:

A3 FIG. 2 shows a generic model structure according to the Prior Art that may be configured to make decisions in a variety of applications, such as processing of financial service applications.

Please replace the paragraph beginning on page 7, line 14 and ending on page 8, line 2 with the following amended paragraph:

A4 FIG. 1 shows a block diagram ~~of one illustrative embodiment~~ of an example-based evidential reasoning system 10 according to the Prior Art. The example-based evidential reasoning system 10 includes a training or self-learning phase 12 and a production phase 14. In the self-learning phase 12, the knowledge of experts 16 in a particular field of interest, such as business, engineering, diagnostics, manufacturing, etc., is acquired and used to develop a knowledge base. For purposes of illustrating this invention, the particular field that is described herein is business related. More specifically, the present invention is described in the context of risk analysis of financial service applications for determining a line of credit requested by a business entity. This invention, however, is not limited to credit risk analysis and can be used in other fields of business as well as in other fields such as science, medicine, engineering, etc. Thus, in the illustrative embodiment, expert knowledge in the field of analyzing financial service applications for credit risk analysis is captured. The experts define a hierarchical model structure of the decision logic used to analyze the risk of a financial service application. In this embodiment, the model structure has an input layer of processing nodes and an output layer having a processing node coupled to each of the input layer processing nodes.

Please replace the paragraph beginning on page 8, line 27 and ending on page 9, line 15 with the following amended paragraph:

FIG. 2 shows a generic model structure 24 according to the Prior Art that may be configured to analyze a financial service application. The model structure includes an input layer of processing nodes 30 and an output layer having a processing node 32 connected to each of the input layer processing nodes. Each processing node in the input layer receives linguistic evidential data for a given financial service application. The linguistic evidential data is pre-processed and organized into a plurality of groups that in one illustrative embodiment, as shown in FIG. 3, may comprise credit agency ratings, financial risk, company risk, payment quality, and magnitude of financial exposure. The linguistic evidential data are then applied to the input layer of processing nodes 30. In the illustrative embodiment, the input layer comprises five different processing nodes that receive respective linguistic evidential data corresponding to a specific group. For example, for the generic model structure shown in FIG. 2, processing node Y_1 would receive linguistic evidential data (e.g., x_{11} . . . x_{15}) for the credit agency ratings group; processing node Y_2 would receive linguistic evidential data (e.g., x_{21} . . . x_{24}) for the financial risk group; processing node Y_3 would receive linguistic evidential data (e.g., x_{31} . . . x_{34}) for the company risk group; processing node Y_4 would receive linguistic evidential data (e.g., x_{41} . . . x_{45}) for the payment quality group; and processing node Y_5 would receive linguistic evidential data (e.g., x_{51} . . . x_{54}) for the financial exposure group.

Please replace the paragraph on page 10 beginning on line 16 and ending on line 26 with the following amended paragraph:

As suggested above, Example-Based ~~example-Based~~ Evidential Reasoning (EBER) is an analytical technique that processes linguistic evidence values from various sources and produces a linguistic evidence value as output. This involves translating the source evidence from linguistic to numeric value. Then applying a suitable evidence aggregation function to the numeric evidence values, and finally mapping the numeric aggregate value to a linguistic output. As shown in FIGS. 2 and 3, the model structure could be a simple input layer and an output layer coupled to one another to perform all of the functions above, or it could be a complex hierarchical multilayer model structure,

A6 where an output evidence value produced at one node of the model structure could be the input evidence value to an intermediate processing node of the model structure.

Please replace the paragraph on page 17 beginning on line 1 and ending on line 8 with the following amended paragraph:

A7 In one exemplary embodiment, the processing of the expert example data collected from each entry in spreadsheet 16 (FIG. 8), may be accomplished by a standard computer-readable spreadsheet application, such as an [[a]] Excel workbook as shown in FIG. 9, appropriately configured with Visual Basic macros and processing code in a computational tool thereof, such as the Excel Solver tool, to determine the optimum numerical values to be assigned to the linguistic evidential data for each processing node, and to further determine the plurality of thresholds separating the output values.